



SEQUENCE LISTING

<110> Ludevid, Dolores
Torrent, Margarita
Alvarez, Inaki
Perez, Pascual

<120> Amino acid-enriched plant protein reserves, particularly
lysine-enriched maize-zein, and plants expressing such proteins

<130> 50062/004001

<140> US 09/117,246

<141> 1998-12-03

<150> PCT/FR97/00167

<151> 1997-01-28

<150> FR96/01004

<151> 1996-01-29

<160> 24

<170> PatentIn version 3.3

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Ala Thr Ser Thr His Thr Ser Gly Gly Cys Gly Cys Gln Pro Pro Pro
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Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val			
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His Leu Pro Pro Pro Val His Val Pro Pro Pro Val His Leu Pro Pro			
65	70	75	80
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Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Pro Gln Pro His Pro			
85	90	95	
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Gln Pro His Pro Cys Pro Cys Gln Gln Pro His Pro Ser Pro Cys Gln			
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ctg cag gga acc tgc ggc gtt ggc agc acc ccg atc ctg ggc cag tgc			384
Leu Gln Gly Thr Cys Gly Val Gly Ser Thr Pro Ile Leu Gly Gln Cys			
115	120	125	
gtc gag ttt ctg agg cat cag tgc agc ccg acg gcg acg ccc tac tgc			432
Val Glu Phe Leu Arg His Gln Cys Ser Pro Thr Ala Thr Pro Tyr Cys			
130	135	140	
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Ser Pro Gln Cys Gln Ser Leu Arg Gln Gln Cys Cys Gln Gln Leu Arg			
145	150	155	160
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Gln Val Glu Pro Gln His Arg Tyr Gln Ala Ile Phe Gly Leu Val Leu			
165	170	175	
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Gln Ser Ile Leu Gln Gln Pro Gln Ser Gly Gln Val Ala Gly Leu			
180	185	190	
ttg gcg gcg cag ata gcg cag caa ctg acg gcg atg tgc ggc ctg cag			624
Leu Ala Ala Gln Ile Ala Gln Gln Leu Thr Ala Met Cys Gly Leu Gln			
195	200	205	
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35 40 45

Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val
50 55 60

His Leu Pro Pro Pro Val His Val Pro Pro Pro Val His Leu Pro Pro
65 70 75 80

Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Pro Gln Pro His Pro
85 90 95

Gln Pro His Pro Cys Pro Cys Gln Gln Pro His Pro Ser Pro Cys Gln
100 105 110

Leu Gln Gly Thr Cys Gly Val Gly Ser Thr Pro Ile Leu Gly Gln Cys
115 120 125

Val Glu Phe Leu Arg His Gln Cys Ser Pro Thr Ala Thr Pro Tyr Cys
130 135 140

Ser Pro Gln Cys Gln Ser Leu Arg Gln Gln Cys Cys Gln Gln Leu Arg
145 150 155 160

Gln Val Glu Pro Gln His Arg Tyr Gln Ala Ile Phe Gly Leu Val Leu
165 170 175

Gln Ser Ile Leu Gln Gln Pro Gln Ser Gly Gln Val Ala Gly Leu
180 185 190

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 Ala Thr Ser Thr His Thr Ser Gly Gly Cys Cys Gln Pro Pro Pro
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 Pro Val His Leu Pro Pro Val His Leu Pro Pro Pro Val His Leu
 35 40 45

cca cct ccg gtg cat ctc cca ccg ccg gtc cac ctg ccg ccg gtc 192
 Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val
 50 55 60

cac ctg cca ccg ccg gtc cat gtg ccg ccg ccg gtt cat ctg ccg ccg 240
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 65 70 75 80

cca cca tgc cac tac cct actcaa ccg ccc ccg atc gaa ttc aaa cca 288
 Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Ile Glu Phe Lys Pro
 85 90 95

aag cca aag ccg aag cca aaa gaa ttc aaa cca aag cca aag ccg aag 336
 Lys Pro Lys Pro Lys Glu Phe Lys Pro Lys Pro Lys Pro Lys Pro
 100 105 110

cca aaa gaa ttc ctg cag ccc ctg cag gga acc tgc ggc gtt ggc agc 384
 Pro Lys Glu Phe Leu Gln Pro Leu Gln Gly Thr Cys Gly Val Gly Ser
 115 120 125

acc ccg atc ctg ggc cag tgc gtc gag ttt ctg agg cat cag tgc agc 432
 Thr Pro Ile Leu Gly Gln Cys Val Glu Phe Leu Arg His Gln Cys Ser
 130 135 140

ccg acg gcg acg ccc tac tgc tcg cct cag tgc cag tcg ttg ccg cag 480
 Pro Thr Ala Thr Pro Tyr Cys Ser Pro Gln Cys Gln Ser Leu Arg Gln
 145 150 155 160

cag tgt tgc cag cag ctc agg cag gtg gag ccg cag cac ccg tac cag 528
 Gln Cys Cys Gln Gln Leu Arg Gln Val Glu Pro Gln His Arg Tyr Gln
 165 170 175

gcg atc ttc ggc ttg gtc ctc cag tcc atc ctg cag cag cag ccg caa 576
 Ala Ile Phe Gly Leu Val Leu Gln Ser Ile Leu Gln Gln Gln Pro Gln
 180 185 190

agc ggc cag gtc gcg ggg ctg ttg gcg gcg cag ata gcg cag caa ctg 624

Ser Gly Gln Val Ala Gly Leu Leu Ala Ala Gln Ile Ala Gln Gln Leu
195 200 205

acg gcg atg tgc ggc ctg cag cag ccg act cca tgc ccc tac gct gct 672
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35 40 45

Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val
50 55 60

His Leu Pro Pro Pro Val His Val Pro Pro Pro Val His Leu Pro Pro
65 70 75 80

Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Ile Glu Phe Lys Pro
85 90 95

Lys Pro Lys Pro Lys Pro Lys Glu Phe Lys Pro Lys Pro Lys Pro Lys
100 105 110

Pro Lys Glu Phe Leu Gln Pro Leu Gln Gly Thr Cys Gly Val Gly Ser
115 120 125

Thr Pro Ile Leu Gly Gln Cys Val Glu Phe Leu Arg His Gln Cys Ser
130 135 140

Pro Thr Ala Thr Pro Tyr Cys Ser Pro Gln Cys Gln Ser Leu Arg Gln
145 150 155 160

Gln Cys Cys Gln Gln Leu Arg Gln Val Glu Pro Gln His Arg Tyr Gln
165 170 175

Ala Ile Phe Gly Leu Val Leu Gln Ser Ile Leu Gln Gln Gln Pro Gln
180 185 190

Ser Gly Gln Val Ala Gly Leu Leu Ala Ala Gln Ile Ala Gln Gln Leu
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Ala Thr Ser Thr His Thr Ser Gly Gly Cys Gly Cys Gln Pro Pro Pro
20 25 30

ccg gtt cat cta ccg ccg gtg cat ctg cca cct ccg gtt cac ctg 144
Pro Val His Leu Pro Pro Val His Leu Pro Pro Pro Val His Leu
35 40 45

cca cct ccg gtg cat ctc cca ccg ccg gtc cac ctg ccg ccg ccg gtc 192
Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val
50 55 60

cac ctg cca ccg ccg gtc cat gtg ccg ccg ccg gtt cat ctg ccg ccg 240
His Leu Pro Pro Pro Val His Val Pro Pro Pro Val His Leu Pro Pro
65 70 75 80

cca cca tgc cac tac cct act caa ccg ccc ccg cct cag cct cat ccc 288
Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Pro Gln Pro His Pro
85 90 95

cag cca cac cca tgc ccg tgc caa cag ccg cat cca agc ccg tgc cag Gln Pro His Pro Cys Pro Cys Gln Gln Pro His Pro Ser Pro Cys Gln 100 105 110	336
atc gaa ttc aaa cca aag cca aag ccg aag cca aaa gaa ttc ctg cag Ile Glu Phe Lys Pro Lys Pro Lys Pro Lys Glu Phe Leu Gln 115 120 125	384
ccc ctg cag gga acc tgc ggc gtt ggc agc acc ccg atc ctg ggc cag Pro Leu Gln Gly Thr Cys Gly Val Gly Ser Thr Pro Ile Leu Gly Gln 130 135 140	432
tgc gtc gag ttt ctg agg cat cag tgc agc ccg acg gcg acg ccc tac Cys Val Glu Phe Leu Arg His Gln Cys Ser Pro Thr Ala Thr Pro Tyr 145 150 155 160	480
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agg cag gtg gag ccg cag cac cgg tac cag gcg atc ttc ggc ttg gtc Arg Gln Val Glu Pro Gln His Arg Tyr Gln Ala Ile Phe Gly Leu Val 180 185 190	576
ctc cag tcc atc ctg cag cag ccg caa agc ggc cag gtc gcg ggg Leu Gln Ser Ile Leu Gln Gln Pro Gln Ser Gly Gln Val Ala Gly 195 200 205	624
ctg ttg gcg gcg cag ata gcg cag caa ctg acg gcg atg tgc ggc ctg Leu Leu Ala Ala Gln Ile Ala Gln Gln Leu Thr Ala Met Cys Gly Leu 210 215 220	672
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 35 40 45

Pro Pro Pro Val His Leu Pro Pro Pro Val His Leu Pro Pro Pro Val
50 55 60

His Leu Pro Pro Pro Val His Val Pro Pro Pro Val His Leu Pro Pro
65 70 75 80

Pro Pro Cys His Tyr Pro Thr Gln Pro Pro Arg Pro Gln Pro His Pro
85 90 95

Gln Pro His Pro Cys Pro Cys Gln Gln Pro His Pro Ser Pro Cys Gln
100 105 110

Ile Glu Phe Lys Pro Lys Pro Lys Pro Lys Glu Phe Leu Gln
115 120 125

Pro Leu Gln Gly Thr Cys Gly Val Gly Ser Thr Pro Ile Leu Gly Gln
130 135 140

Cys Val Glu Phe Leu Arg His Gln Cys Ser Pro Thr Ala Thr Pro Tyr
145 150 155 160

Cys Ser Pro Gln Cys Gln Ser Leu Arg Gln Gln Cys Cys Gln Gln Leu
165 170 175

Arg Gln Val Glu Pro Gln His Arg Tyr Gln Ala Ile Phe Gly Leu Val
180 185 190

Leu Gln Ser Ile Leu Gln Gln Pro Gln Ser Gly Gln Val Ala Gly
195 200 205

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Xaa
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Xaa
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Xaa
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Pro Lys

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Pro Lys Pro Lys
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